

REMARKS

The Office Action mailed June 3, 2003 has been reviewed and the comments of the Patent and Trademark Office have been considered. Claims 1-29 were pending in the application, with claims 23-29 being provisionally withdrawn. Claims 4, 5, 11, 15, 16, and 23 have been amended, claims 30-45 have been newly added, and no claims have been canceled. Therefore, claims 1-45 are pending in the application with claims 23-29 being currently provisionally withdrawn from consideration.

As a preliminary matter, applicants request that the examiner acknowledge the Proprietary Information Disclosure Statement filed September 28, 2001, and indicate whether the submitted reference is material as required under M.P.E.P. §724.

Applicants sincerely thank the examiner for indicating that claims 4, 5, 15, and 16 contain allowable subject matter. Claims 4, 5, 15, and 16 have been rewritten in independent form to include all of the limitations of the base claim and any intervening claims. Accordingly, claims 4, 5, 15, and 16 as well as newly added claims 30-45, that depend from independent claims 4 and 15, are now in condition for allowance in accordance with the indication in the Office Action. Furthermore, applicants have amended method claim 23 to include the limitations of allowed product claim 4. Accordingly, claim 23 (and claims 24-29 dependent therefrom) should now be rejoined and allowed as required by MPEP 821.04 and *In re Ochiai*, 71 F.3d 1565 (Fed. Cir. 1995).

This amendment changes and adds claims in this application. A detailed listing of all claims that are, or were, in the application, irrespective of whether the claim(s) remain under examination in the application, is presented, with an appropriate defined status identifier.

Claim 11 is rejected under 35 U.S.C. § 112, second paragraph, as being indefinite. Claim 11 has been amended to address the issue noted in the Office Action and pending claim 11 is now believed to conform to the requirements of § 112, second paragraph.

In the Office Action, claims 1-3, 6, 7, 9-14, 17, 18, and 20-22 are rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. patent 4,955,246 to Nakano (hereafter "Nakano") in view of U.S. patent 5,670,265 to Grell et al. (hereafter "Grell"). Claims 1-3, 8-14, and 19-22 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Nakano in view of U.S. patent 6,318,898 to Ward et al. (hereafter "Ward"). Applicants respectfully

traverse these rejections, insofar as they are applicable to these claims, for at least the following reasons.

Nakano discloses a CVT but does not disclose or suggest anything related to the coatings of a rolling element.

Grell discloses zinc-nickel coating having the thickness of at the most 1.5 μm and the hardness of at least 650Hv. However, Grell does not disclose the specific features of the claimed invention and nor is there proper motivation to combine Grell with Nakano to disclose or suggest the claimed invention.

As disclosed in the specification, the claimed invention aims to eliminate the problems in the earlier techniques as described in paragraphs 0006-0008 of the specification and improve the rolling-fatigue strength of a rolling element by preventing short-life peeling due to hydrogen-induced embrittlement that is caused when hydrogen generated by decomposition of a lubricating oil during rolling of the rolling element penetrates into the metal material of the rolling element, as described in paragraph 0001 of the specification. Further, the claimed invention of the present application has the effect of suppressing hydrogen infiltration into the metal structure of the rolling element as described in paragraphs 0011-0013 and 0016-0017 of the specification. This provides the motivation for the coatings claimed in the instant application. Neither this problem nor the claimed solution are disclosed or suggested by the applied combination.

Accordingly, there is insufficient motivation to apply the zinc-nickel coating taught by Grell to the rolling surfaces of the CVT taught by Nakano. In fact, Grell actually teaches away from the claimed invention since Grell teaches that one of its important features is that anti-corrosive coating is thinner than the surface roughness of the hardened component before the coating is applied. See col. 1, lines 38-41 and 48-50 of Grell. That is, Grell teaches that for a surface hardness R_2 of 0.3 to 9.0 μm , the anti-corrosive coating is in the corresponding range of 0.1 to 3.0 μm . This is in sharp contrast to one of the aspects of the present invention, as claimed in claim 4 for example, where the surface roughness is less than 0.1 Ra. By implication, in the context of the claimed invention, Grell teaches that the coating would be thinner than 0.1 to 20 μm in claims 1 and 12. Therefore, Grell's principle of operation would have to be impermissibly altered to disclose the recited coating thickness in claims 1 and 12.

Accordingly, there is no proper motivation to combine Grell with Nakano in the context of the invention recited in claims 1 and 12. Therefore, claims 1 and 12 are believed to be patentable over the applied combination of Nakano and Grell.

With respect to the combination of Nakano and Ward, applicants also note there is no proper motivation to combine Ward with Nakano. Neither Ward nor Nakano disclose or suggest either the problem or its solution as disclosed by the present application. See paragraphs 0001 and 0006-0008 of the present application, for example. In fact, Ward teaches away from the claimed combination by teaching that it relates to “rendering bearing components corrosion-resistant for use in food and beverage, chemical, marine, and other similar corrosive applications.” There is simply no teaching or suggestion of the Ward bearings being designed for use in an automotive CVT as disclosed by Nakano. Accordingly, applicants believe that the combination of Ward and Nakano in the context of the claimed invention is not proper. Accordingly, applicants submit that the independent claims 1 and 12 are patentable over the combination of Ward and Nakano.

The dependent claims are also in condition for allowance for at least the same reasons, as discussed above, as the respective independent claim on which they ultimately depend. In addition, they recite additional patentable features when considered as a whole.

In view of the foregoing amendments and remarks, applicants respectfully request entry and consideration of the instant amendment and reply because it is believed to place the application in condition for allowance. If there are any questions regarding the application, or if an examiner's amendment would facilitate the allowance of one or more of the claims, the examiner is invited to contact the undersigned attorney at the local telephone number below.

Respectfully submitted,

Date October 3, 2003

FOLEY & LARDNER

Customer Number: 22428

Telephone: (202) 945-6162

Facsimile: (202) 672-5399

By Aaron C. Chatterjee

Richard L. Schwaab

Registration No. 25,479

Aaron C. Chatterjee

Registration No. 41,398

Attorneys for Applicant

Should additional fees be necessary in connection with the filing of this paper, or if a petition for extension of time is required for timely acceptance of same, the Commissioner is hereby authorized to charge deposit account No. 19-0741 for any such fees; and applicants hereby petition for any needed extension of time.